

Just the Facts...

The Low-Carbohydrate Diet: Magic Cure for Weight Loss?

Obesity is on the verge of overtaking tobacco as the leading cause of preventable death in the United States. In fact, it has reached epidemic proportions which have resulted in rising health care costs associated with weight-related illnesses such as diabetes and high blood pressure.

Anyone who has tried to lose weight knows how challenging it can be. That's why many people turn to fad diets. Each year Americans spend billions of dollars on weight-loss diets and products looking for the magic cure for getting the pounds off quickly with little or no effort.

One of the more popular diets today is the low-carbohydrate diet. This diet has gone in and out of fashion over the years. With book sales in the millions and slick marketing campaigns, many people go on a low-carbohydrate diet for help in losing weight. But does it work? Is it safe?

There is a growing misconception that carbohydrates are unhealthy. However, carbohydrates are the body's main source of energy and needed for everything from normal brain function to walking up a flight of stairs. Carbohydrates help ensure an adequate supply of vitamins, minerals, fiber and phytochemicals (substances plants naturally produce that may help protect against some cancers, heart disease, and other chronic health conditions).

The National Academy of Sciences' Institute of Medicine recommends that most adults consume at least 130 grams of carbohydrates each day. This is approximately equal to the amount of carbohydrate found in 4 slices of bread, two medium pieces of fresh fruit, three ½ cup servings of vegetables, and two 8 ounce glasses of milk. However, some popular low-carbohydrate diets initially limit carbohydrate well below this level. Nutrient-rich foods like beans, fruits, breads, rice, potatoes, pasta and most grains are often prohibited on a low-carbohydrate diet.

Characteristics of the Low-Carbohydrate Diet

Although researchers have reported some successful **short-term** results from restricting carbohydrate intake, it is important to consider the reasons for the weight loss.

Loss of water weight – the initial weight loss from low-carbohydrate diets is water weight. Because fewer carbohydrates are eaten, the body burns its stored carbohydrates (glycogen) and fat for energy. When the body burns glycogen, water is released, and weight loss results.

Decreased appetite – Burning fat without carbohydrates creates byproducts called ketones that build up in the bloodstream (ketosis). In a state of ketosis, many people find they have a decreased appetite or less drive to eat.

Reduced calories – Most low-carbohydrate diets are low in calories because an entire food group is limited. Fewer calories being eaten compared to the number of calories used for energy will result in weight loss.

Many low-carbohydrate diets are high in total fat, saturated fat, and protein. They are also low in fiber. High fat diets increase the risk for heart disease and cancer. Excess protein can put a strain on kidneys and promote calcium excretion and electrolyte imbalance. Too little fiber can result in constipation. Following a low-carbohydrate, high-protein diet can also cause nausea, fatigue and weakness.

Proponents of low-carbohydrate diets claim that ketosis helps to burn fat. However, research does not support this. Prolonged ketosis may deplete mineral stores in the bones, causing them to become porous and brittle. It can also cause the body to produce high levels of uric acid, which is a risk factor for gout (painful swelling of the joints) and kidney stones. Ketosis may be especially dangerous for people with diabetes and kidney disease and pregnant women.

Research has not yet determined the **long-term** effectiveness of the low-carbohydrate diet. However, the medical community is concerned about the long-term effects on the health, especially the heart. Foods promoted in the low-carbohydrate diet plan are high in saturated fat (e.g., meat, butter, and cream) and have been shown to increase the risk of heart disease and certain types of cancer. On the contrary, foods restricted in this type of diet (e.g., whole-grains, vegetables and fruits) have vitamins, minerals and other nutrients that can help reduce the risk of diabetes, heart disease, cancer and other conditions.

The Bottom Line

Like most fad diets, low-carbohydrate diets may help you lose weight quickly. However, most people find it difficult to maintain the weight loss for a long period of time. Also, little is known about the long-term effects a low-carbohydrate diet has on heart disease, cancer and other health conditions.

Recommendations for Successful Weight Loss and Maintenance

Balancing a nutritious diet with regular physical activity is the healthiest way to lose weight and keep it off. Habits are what need to change and it takes at least 21 days to maintain either a good or bad habit. It's a process that although challenging is not impossible. It involves committing to lifestyle change – eating healthier and being more physically active.

If you are considering going on a weight loss diet, avoid diets that:

- Promise quick weight loss results (more than 1 – 2 pounds per week)
- Claim that you can lose weight and keep it off without making changes in diet and exercise habits
- Limit food choices
- Base claims on before and after photos
- Offer “expert” testimonials
- Draw simple conclusions from complex medical research
- Require you to spend a lot of money on things like supplements or prepackaged meals

There is no magic formula for losing weight. The only way to lose weight and keep it off is through **permanent** lifestyle changes. Although traditional recommendations for weight management may produce slower results, they are the proven path to improved health and lasting weight loss. Whether you need to lose 5 pounds or 50 pounds, you need to eat right and exercise to control your weight. Aim for a long-term plan – one that offers a lifetime of tried-and-tested health strategies.

Always talk to your doctor BEFORE starting a weight loss program. Ask to be referred to a Registered Dietitian for assistance in planning a nutrition program that will meet your specific needs. Follow these tips for successful weight loss:

- Eat a variety of foods from all of the food groups.
- Make sure your portion sizes are appropriate.
- Eat breakfast everyday.
- Don't skip meals.
- Limit the amount of sugar in your diet.
- Limit the amount of sodium, saturated fat, and cholesterol in your diet.
- Include regular exercise as a part of your weight loss program.

- Be more physically active in your daily life (e.g., take the stairs instead of the elevator, park far away from your destination). Get a pedometer or step counter and gradually work up to 10,000 steps each day.
- Focus on losing the desired weight AND keeping it off. Losing weight just to meet the next “weigh-in” or to get into that dress for the high school reunion is a waste of time and can be harmful to your body. This type of “yo-yo” dieting decreases your metabolism and makes it harder to lose weight the next time you go on a diet. Make up your mind once and for all to lose the weight and keep it off.

Your body is one of your most valuable assets. Take good care of it and it will take good care of you!

Resources to Help You Manage Your Weight

The following resources may be helpful to you in managing your weight:

- ◆ [American Council on Exercise](#)
Consumer Fitness Hot Line
800-529-8227
- ◆ [The American Dietetic Association](#)
National Center for Nutrition and Dietetics
216 West Jackson Boulevard
Chicago, IL 60606-6995
Consumer Nutrition Hotline: 800-366-1655
- ◆ [Food and Nutrition Information Center](#)
National Agricultural Library
U.S. Department of Agriculture
Room 304
10301 Baltimore Avenue
Beltsville, MD 20705-2351
301-504-5719
- ◆ [International Food Information Council](#)
1100 Connecticut Avenue, NW
Suite 430
Washington, DC 20036
202-296-6540
- ◆ [Calorie Control Council](#)
- ◆ [Healthfinder](#) from the U.S. Department of Health and Human Services
- ◆ [Hooah for Health](#)
- ◆ [The LEARN Education Center](#)
- ◆ [Mayo Clinic Health Oasis](#)
- ◆ [The Partnership for Healthy Weight Management](#)
- ◆ [Shape Up America](#)
P.O. Box 1995
Monroe, CT 06468-1995
- ◆ [Tufts University Nutrition Navigator](#)
- ◆ [U.S. Center for Health Promotion and Preventive Medicine](#)
- ◆ [Weight-control Information Network of the National Institute of Diabetes and Digestive and Kidney Diseases](#)